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## NOTICE OF ALLOWANCE AND FEE(S) DUE

23869 7590 11/16/2009

HOFFMANN & BARON, LLP  
6900 JERICHO TURNPIKE  
SYOSSET, NY 11791

EXAMINER

GONZALES, APRIL GUZMAN

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 11/16/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,193	04/21/2006	Taavi Hirvonen	187-95 PCT/US/RCE	1356

TITLE OF INVENTION: METHOD AND ARRANGEMENT FOR TESTING A RADIO DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	02/16/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

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**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

23869 7590 11/16/2009

**HOFFMANN & BARON, LLP**  
**6900 JERICHO TURNPIKE**  
**SYOSSET, NY 11791**

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**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or by facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,193	04/21/2006	Taavi Hirvonen	187-95 PCT/US/RCE	1356

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nonprovisional	NO	\$1510	\$300	\$0	\$1810	02/16/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
GONZALES, APRIL GUZMAN	2618	455-081000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

"Fee Address" indication (or "Fee Address" indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
 2 \_\_\_\_\_  
 3 \_\_\_\_\_

## 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

## 4a. The following fee(s) are submitted:

- Issue Fee
- Publication Fee (No small entity discount permitted)
- Advance Order - # of Copies \_\_\_\_\_

## 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- A check is enclosed.
- Payment by credit card. Form PTO-2038 is attached.
- The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

## 5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS; SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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23869	7590	11/16/2009	EXAMINER	
HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE SYOSSET, NY 11791				GONZALES, APRIL GUZMAN
ART UNIT		PAPER NUMBER		
2618				DATE MAILED: 11/16/2009

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b> 10/538,193	<b>Applicant(s)</b> HIRVONEN ET AL.
	<b>Examiner</b> APRIL G. GONZALES	<b>Art Unit</b> 2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 09/11/2009.
  2.  The allowed claim(s) is/are 1,3-21 and 23.
  3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a)  All    b)  Some\*    c)  None    of the:
      1.  Certified copies of the priority documents have been received.
      2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.
- Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**
4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a)  including changes required by the Notice of Draftperson's Patent Drawing Review ( PTO-948) attached
      - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
    - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
  6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 07/11/05, 05/21/07
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

/APRIL G. GONZALES/  
Examiner, Art Unit 2618

**DETAILED ACTION**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Rod Turner on 11/04/2009.

The application has been amended as follows:

1. An arrangement for testing a radio device comprising:

a waveguide closed at both of its ends; and

comprising a holder arranged to hold the radio device partly inside the waveguide in such a manner that at least a portion of the radiating part of the radio device remains outside the waveguide, the at least a portion of the radiating part of the radio device remaining outside the waveguide being entirely inside the holder, wherein the waveguide comprises:

one or more ridges extending along a longitudinal axis of the waveguide, the end of at least one ridge facing the holder being bevelled; and

one coupling inside the waveguide for transmission and reception of a radio-frequency signal by the use of a wideband mode of propagation;

wher cin the end of the waveguide on the side of the holder comprises one or more pegs made from a conductive substance and fastened to the inner surface of the waveguide.

2. (Cancelled)

17. A method of testing a radio device, wherein the radio device to be tested is mounted by means of a holder such that the radio device is held partly inside a waveguide closed at both of its ends, the method comprising:

generating a wideband mode of propagation in the waveguide by means of at least one ridge extending along a longitudinal axis of the waveguide, the end of the at least one ridge facing the holder being bevelled; and

transmitting and receiving radio-frequency signals by using the wideband mode of propagation between the radio device and a coupling installed in the waveguide, at least a portion of the radiating part of the radio device remaining outside the waveguide, the at least a portion of the radiating part of the radio device remaining outside the waveguide being entirely inside the holder;

wherein one or more pegs made from a conductive material are fastened to the inner surface of the waveguide at the end of the waveguide on the side of the holder.

22. (Cancelled)

The following is an examiner's statement of reasons for allowance:

Consider claim 1, the best prior art of record made during the examination of the application, Mattson et al. (US PAT 6,188,365) herein Mattson in view of Kuroda (US PAT 3,383,630) fail to specifically teach, suggest, or disclose an arrangement for testing a radio device comprising: a waveguide closed at both of its ends; and comprising a holder arranged to hold the radio device partly inside the waveguide in such a manner that at least a portion of the radiating part of the radio device remains outside the waveguide, the at least a portion of the

radiating part of the radio device remaining outside the waveguide being entirely inside the holder, wherein the waveguide comprises: one or more ridges extending along a longitudinal axis of the waveguide, the end of at least one ridge facing the holder being beveled; and one coupling inside the waveguide for transmission and reception of a radio-frequency signal by the use of a wideband mode of propagation; wherein the end of the waveguide on the side of the holder comprises one or more pegs made from a conductive substance and fastened to the inner surface of the waveguide.

Mattson teach a device for testing a transmitter and/or receiver of electromagnetic waves includes a hollow metal body, dimensioned to function as a waveguide, including a hole for receiving a test antenna and a hole for receiving the receiver to be tested, a test antenna inserted into the hole, and a signal generating device connected to the test antenna (abstract). A metal box 1, with a rectangular cross-section is used as a waveguide. Both ends of the waveguide 1 are closed, so that it is a closed box with a minimum of RF leakage (column 3 lines 30-36). A measuring probe 3 is inserted into a hole 5 in the waveguide 1 from the top. A distance of a quarter of a wavelength into the waveguide 1, on the same side as the measurement antenna there is a hole 11 adapted to receive an antenna 13 that is to be tested (column 3 lines 37-46).

Kuroda teach a standard waveguide is attached perpendicularly to a device at the portion of conjunction (Figure 8 & 9). With this device, the electromagnetic wave entering at a terminal 10 is transmitted to both terminals 11 and 12 in phase, but not to another terminal 13 because of their electric-field vectors are perpendicular to each other (column 2 lines 21-30 and column 2 lines 41-47).

These teachings either alone or in combination fail to teach the invention, therefore claim 1 is considered novel and non-obvious over the prior art and therefore claim 1 is allowed.

Claims 3-16 depend upon allowable claim 1, therefore claims 3-16 are also allowed for the reasons explained above in view of Mattson and Kuroda.

Consider claim 17, the best prior art of record made during the examination of the application, Mattson et al. (US PAT 6,188,365) herein Mattson in view of Kuroda (US PAT 3,383,630) fail to specifically teach, suggest, or disclose a method of testing a radio device, wherein the radio device to be tested is mounted by means of a holder such that the radio device is held partly inside a waveguide closed at both of its ends, the method comprising: generating a wideband mode of propagation in the waveguide by means of at least one ridge extending along a longitudinal axis of the waveguide, the end of the at least one ridge facing the holder being beveled; and transmitting and receiving radio-frequency signals by using the wideband mode of propagation between the radio device and a coupling installed in the waveguide, at least a portion of the radiating part of the radio device remaining outside the waveguide, the at least a portion of the radiating part of the radio device remaining outside the waveguide being entirely inside the holder; wherein one or more pegs made from a conductive material are fastened to the inner surface of the waveguide at the end of the waveguide on the side of the holder.

The teachings of Mattson and Kuroda either alone or in combination fail to teach the invention. Therefore, for similar reasons explained above in view of claim 1, claim 17 is considered novel and non-obvious and is therefore allowed.

Claims 18-21 and 23 depend upon allowable claim 17, therefore these claims are also allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

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**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to April Guzman Gonzales whose telephone number is 571-270-1101. The examiner can normally be reached on Monday - Friday, 10:00 a.m. - 6:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/April Guzman Gonzales/  
Examiner, Art Unit 2618

/Matthew D. Anderson/  
Supervisory Patent Examiner, Art Unit 2618